PUBLIC NOTICE

US ARMY CORPS OF ENGINEERS

OMAHA DISTRICT

APPLICANT: SD DEPT OF TRANSPORTATION
APPLICATION NO: 200430323
WATERWAY: SPRING CREEK/ELM CREEK/ UNNAMED TRIBUTARIES
ISSUE DATE: OCTOBER 20, 2004
EXPIRATION DATE: NOVEMBER 10, 2004

Regulatory Office, 28563 Powerhouse Rd, Room 118, Pierre, SD 57501

21-DAY NOTICE

JOINT NOTICE OF PERMIT PENDING

US ARMY CORPS OF ENGINEERS
AND
SOUTH DAKOTA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

The application of the SD Dept of Transportation (SD DOT), 700 East Broadway, Pierre, South Dakota 57501, for approval of plans and issuance of a permit under authority of the Secretary of the Army is being considered by the District Engineer, US Army Engineer District, Omaha, Nebraska.

The applicant requests authorization to perform fill placement activities in various streams and adjacent wetlands in association with the phase construction of the Heartland Expressway project involving the addition of two (2) driving lanes to existing South Dakota Highway 79 from Buffalo Gap to Maverick Junction. The project is located in Sections 30 and 31, Township 6 South, Range 7 East, Custer County and in Sections 1, 12, 13, 14 and 23, Township 7 South, Range 6 East, Fall River County, South Dakota.

The proposed project will consist of constructing new road grade adjacent to the existing highway to include replacement or extension of drainage culverts, bank and channel erosion protection, temporary contractor crossings and work platforms, and seeding and mulching of disturbed areas. The project construction will adversely impact short segments of stream channel including 0.10 acre of wetland area in locations adjacent to the streams. The wetland loss is proposed to be mitigated (replaced) from the SD DOT existing wetland mitigation bank at a site located in Tripp County, South Dakota.

The purpose of the project is to improve the current condition of the roadway for public safety by upgrading the existing two-lane highway to a four-lane highway and accommodating high volumes of traffic. A relative high number of accidents have occurred along this road route.

The South Dakota Department of Environment and Natural Resources, Division of Environmental Services, 523 East Capitol Avenue, Pierre, South Dakota, 57501-3181, will review the proposed project for state certification in accordance with the provisions of Section 401 of the Clean Water Act. The certification, if issued, will express the State's opinion that the operations undertaken by the applicant will not result in a violation of applicable water quality standards. The South Dakota Department of Environment and Natural Resources hereby incorporates this public notice as its own public notice and procedures by reference (ARSD 74:51:01).

Omaha District will comply with the National Historic Preservation Act of 1966, as amended. The U. S. Department of Transportation, Federal Highway Administration (Lead Federal Agency - funding) and the applicant completed an Environmental Assessment (EA) of the proposed project construction activities. The EA indicates that a cultural resources survey was completed and the survey report provided to the State Historic Preservation Officer (SHPO). In an attachment to the EA (letter dated September 26, 2001), the SHPO concurred with a "NO HISTORIC PROPERTIES AFFECTED" determination provided that certain mitigation stipulations in the survey report are followed (SHPO Project ID No. 010829006F). However, we will evaluate any additional input by the SHPO and the public in response to this public notice.

In compliance with the Endangered Species Act, a preliminary determination has been made that the described work will not affect species designated as threatened or endangered or adversely affect critical habitat. In order to complete our evaluation of this activity, comments are solicited from the U.S. Fish and Wildlife Service and other interested agencies and individuals.

The decision whether to issue a permit will be based on an evaluation of the probable impacts including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the proposals must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the activity will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food production, and, in general the needs and welfare of the people. In addition, the evaluation of the impacts of the project on public interest will include application of the guidelines promulgated by the Administrator, Environmental Protection Agency, under authority of Section 404(b) of the Clean Water Act (40 CFR Part 230).

The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearings shall state, with particularity, the reason for holding a public hearing. The request must be submitted to the US Army Corps of Engineers, South Dakota Regulatory Office, 28563 Powerhouse Road, Room 118, Pierre, South Dakota 57501.

Any interested party (particularly officials of any town, city, county, state, Federal agency, Indian Tribe, or local association whose interests may be affected by the proposed work) is invited to submit to this office, written facts, arguments, or objections on or before November 10, 2004. Any agency or individual having an objection to the proposed work should specifically identify it as an objection with clear and specific reasons. Comments, both favorable and unfavorable, will be accepted, made a part of the record and will receive full consideration in subsequent actions on this permit application. All replies to the public notice should be addressed to the address listed in the previous paragraph. Thomas A Lowin, telephone number (605) 224-8531, may be contacted for additional information.

Comments received after the close of the business day on the expiration date of this public notice will not be considered.

This project, if authorized, will be under the provisions of Section 404 of the Clean Water Act.

Drawings showing the location and extent of the work are attached to this notice.

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TO SHE
	NH-PH 0079(02)26 NH 0018(111)44	1	

Plotting Date: 18-AUG-2004 Rev 02/19/04

STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION
PLANS FOR PROPOSED

PROJECT NH-PH 0079(02)26 & NH 0018(111)44

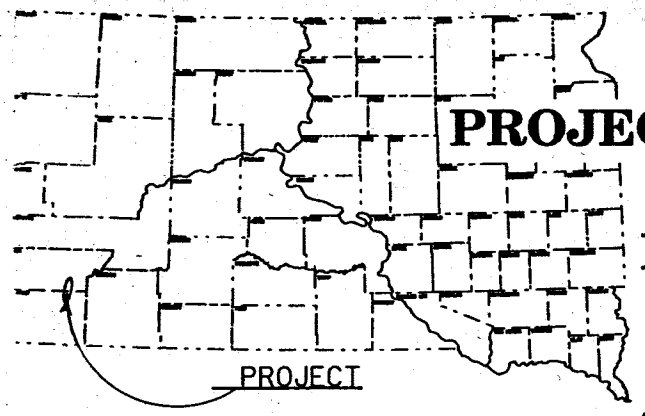
HIGHWAY S.D. 79

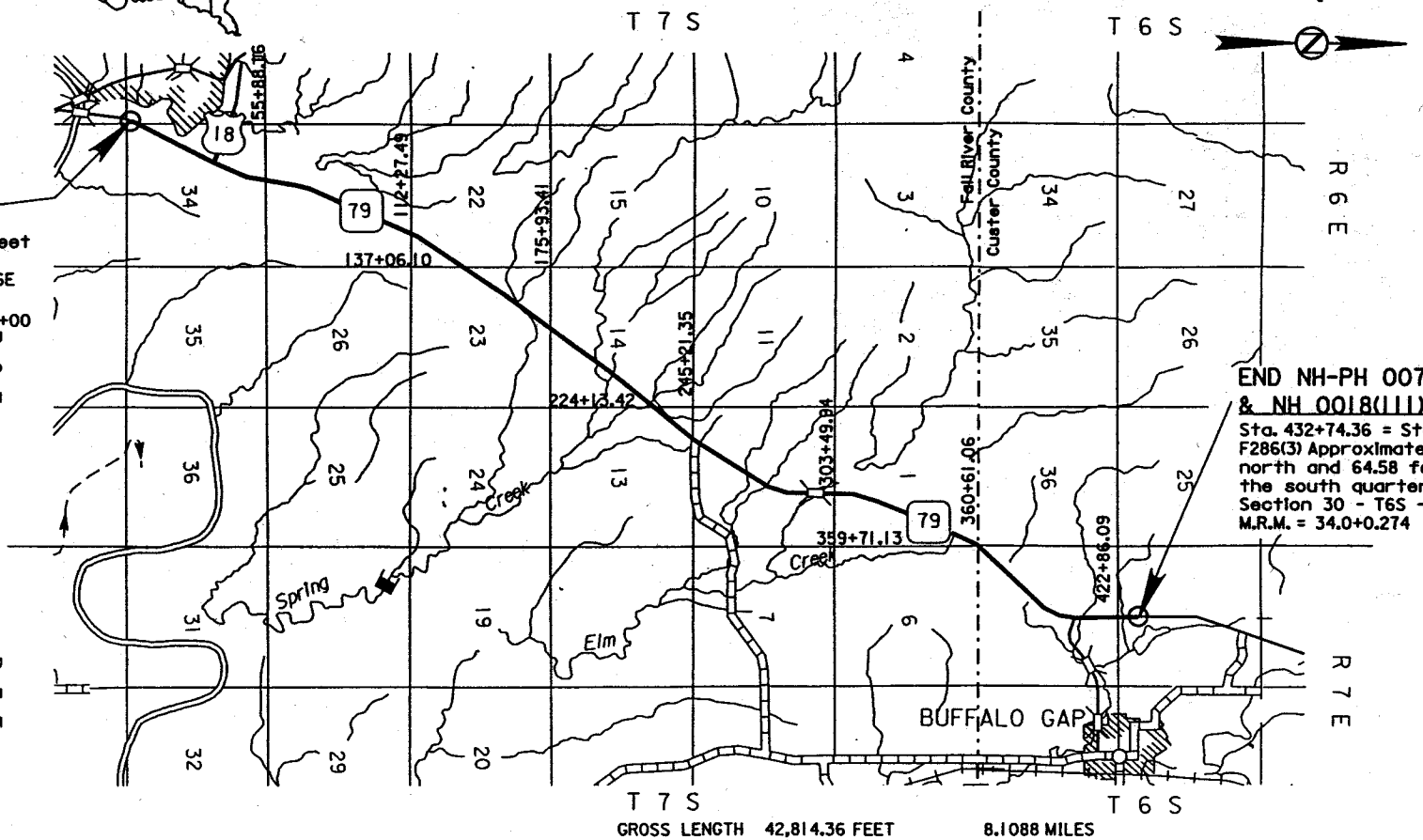
FALL RIVER & CUSTER COUNTIES

Grading, Structures, & PCC Surfacing

PCEMS 6146 & 6541

INDEX OF SECTIONS





BEGIN NH-PH 0079(02)26 & NH 0018(111)44
Sta. 4+60 = Sta. 466+33.53
F 010-1(1) Approximately 593.37 feet North and 63.71 feet west of SW corner Section 34 - T7S - R6E
M.R.M. SD 79 = 26.75+0.0
M.R.M. US 18 = 43.93+.467 to 44.67+00

END NH-PH 0079(02)26 & NH 0018(111)44
Sta. 432+74.36 = Sta. 37+58.43
F286(3) Approximately 989.17 feet north and 64.58 feet west of the south quarter corner of Section 30 - T6S - R6E
M.R.M. = 34.0+0.274

SIGN DESIGNATION

	SD 79	US 18
T (2001)	3630	4220
T (2021)	5850	6695
V	745	850
	60%	60%
DHV	8.6%	6.2%
ADT	19.0%	13.7%
	70 mph	70 mph

ORM WATER PERMIT
or Stream: Spring Creek & Elm Creek
ea Disturbed: 221 Acres

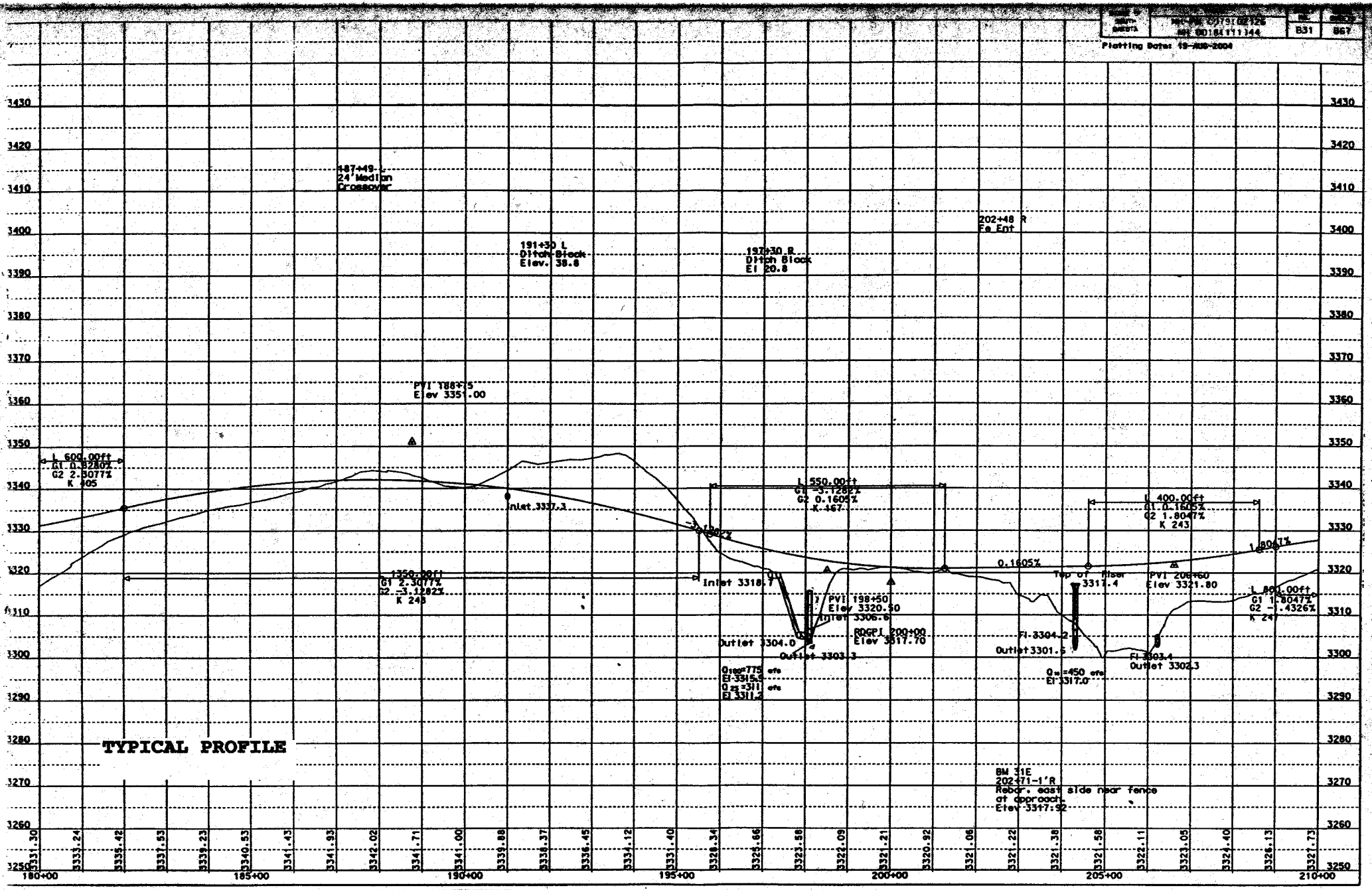
SCALES

		RURAL	SUBURBAN	URBAN
		1"=200'	1"=100'	1"=40'
PLE.	HORIZONTAL:	1"=200'	1"=100'	1"=40'
	VERTICAL:	1"=20'	1"=20'	1"=10'
S	HORIZONTAL:	1"=40'	1"=20'	1"=20'
TIONS	VERTICAL:	1"=20'	1"=10'	1"=10'

GROSS LENGTH	42,814.36 FEET	8.1088 MILES
LENGTH OF EXCEPTIONS	0.00 FEET	0.00 MILES
NET LENGTH	42,814.36 FEET	8.1088 MILES

PURPOSE: Road Improvement
APPLICATION BY:
SD Dept. of Transportation
No. 200430323

IN streams/wetlands
AT T6S/R7E - T7S/R6E
COUNTY Custer/Fall River
DATE 10/20/2004
SHEET 1 **of** 15

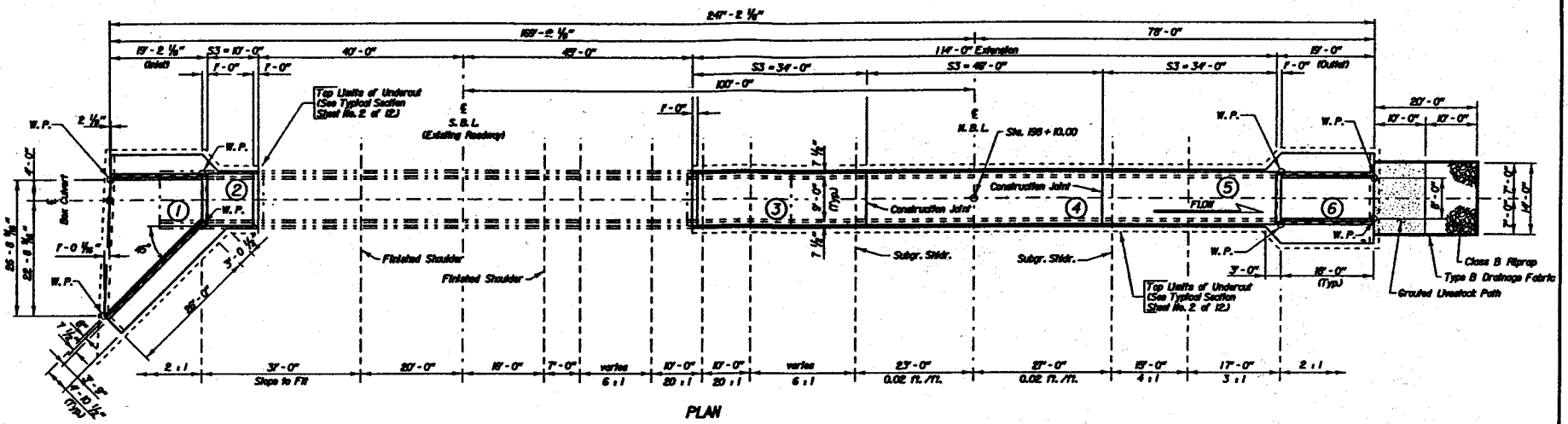


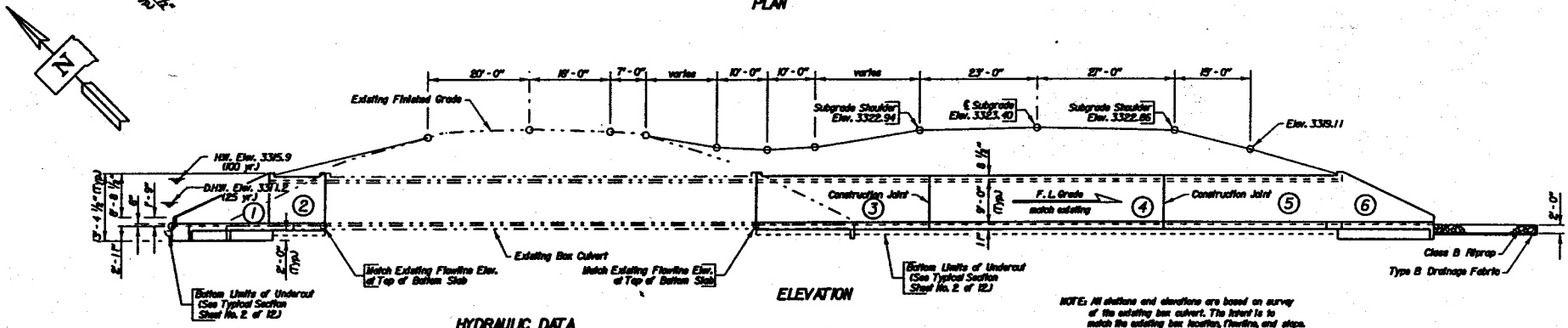
PURPOSE: Road Improvement
APPLICATION BY:
SD Dept. of Transportation
No. 200430323

IN streams/wetlands
AT T6S/R7E - T7S/R6E
COUNTY Custer/Fall River
DATE 10/20/2004
SHEET 10 **of** 15

STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
S.D.	NH 0079(02)126		

The elevations shown in these plans are based on the National Geodetic Survey (NGS) North American Vertical Datum of 1988 (NAVD88).





NOTE: All stations and elevations are based on survey of the existing box culvert. The intent is to match the existing box location, flowline, and slope.

HYDRAULIC DATA

Q_d	311 cfs
A_d	19 sq.ft.
V_d	16.1 fps
Q_p	311 cfs
Q_{100}	775 cfs
V_{max}	20.0 fps

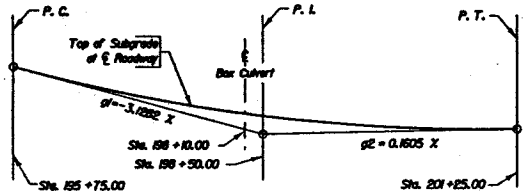
Q_d = Design discharge for the proposed culvert based on 25 year frequency. El. 3311.8

Q_p = Designated peak discharge for the basin approaching proposed project based on 25 year frequency.

Q_{100} = Computed discharge for the basin approaching proposed project based on 100 year frequency. El. 3315.9

V_{max} = Maximum computed outlet velocity for the proposed culvert based on a 100 year frequency.

P.I. Sta. 198+50.00
Elev. 3320.50 (Subgrade)
V.C. = 550



VERTICAL CURVE DATA

ESTIMATED QUANTITIES

	ITEM	UNIT	QUANTITY
	Class A45 Concrete, Box Culvert	Cu. Yd.	185.1
	Reinforcing Steel	Lb.	38149
	Structure Excavation, Box Culvert	Cu. Yd.	79
①	Box Culvert Undercut	Cu. Yd.	820
	Breakout Structural Concrete	Cu. Yd.	25.2
	Install Dowel In Concrete	Each	12
⇒	Class B Riprap	Ton	29.0
	Type B Drainage Fabric	Sq. Yd.	46

① For payment, quantity is based on plan shown undercut dimensions and will not be measured unless the Engineer orders a change.

⇒ For estimating purposes only a factor of 1.4 tons/cu. yd. was used to convert Cu. Yds. to Tons.

INDEX OF CULVERT SHEETS-

PLANS BY :
OFFICE OF BRIDGE DESIGN, SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION

GENERAL DRAWING & QUANTITIES
FOR
9' X 9' BOX CULVERT EXTENSION

STA. 198+10.00
OVER SPRING CREEK
STR. NO. 24-347-027
PCEMS NO. 6146

0° SKEW
SEC. 14-T7S-R6E
NH 0079(02)26
HS 20-44
(& ALT.)

FALL RIVER COUNTY
S. D. DEPT. OF TRANSPORTATION
NOVEMBER 2003

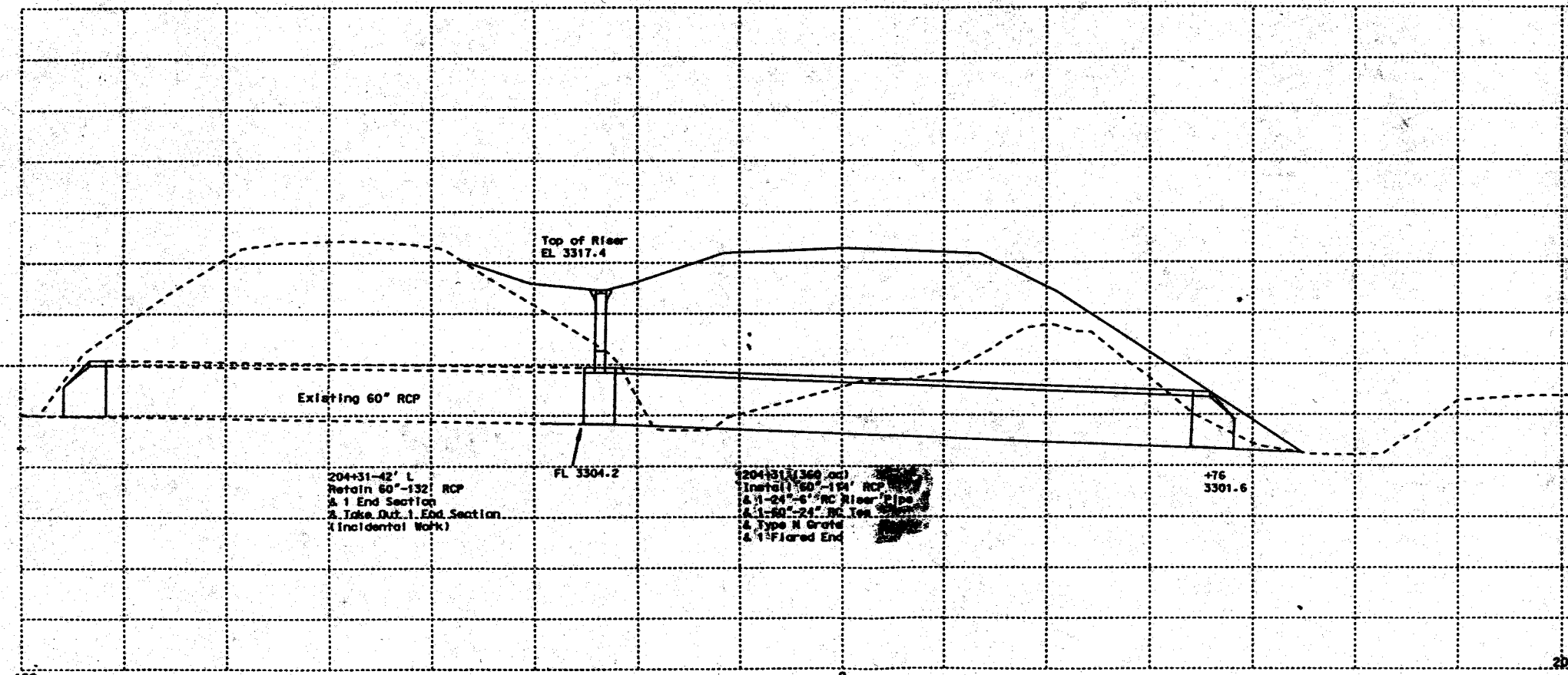
(1) OF (12)

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED
SJ/RS	JS	RS/SJ	BRIDGE ENGINEER
FRIVER46	6146.TADI		

TYPICAL CULVERT EXTENSION

PURPOSE: Road Improvement
APPLICATION BY:
SD Dept. of Transportation
No. 200430323

IN streams/wetlands
AT T6S/R7E - T7S/R6E
COUNTY Custer/Fall River
DATE 10/20/2004
SHEET 11 **of** 15



TYPICAL CROSS SECTION for **CULVERT EXTENSION**

PURPOSE: Road Improvement
APPLICATION BY:
SD Dept. of Transportation
No. 200430323

IN streams/wetlands
AT T6S/R7E - T7S/R6E
COUNTY Custer/Fall River
DATE 10/20/2004
SHEET 12 **of** 15

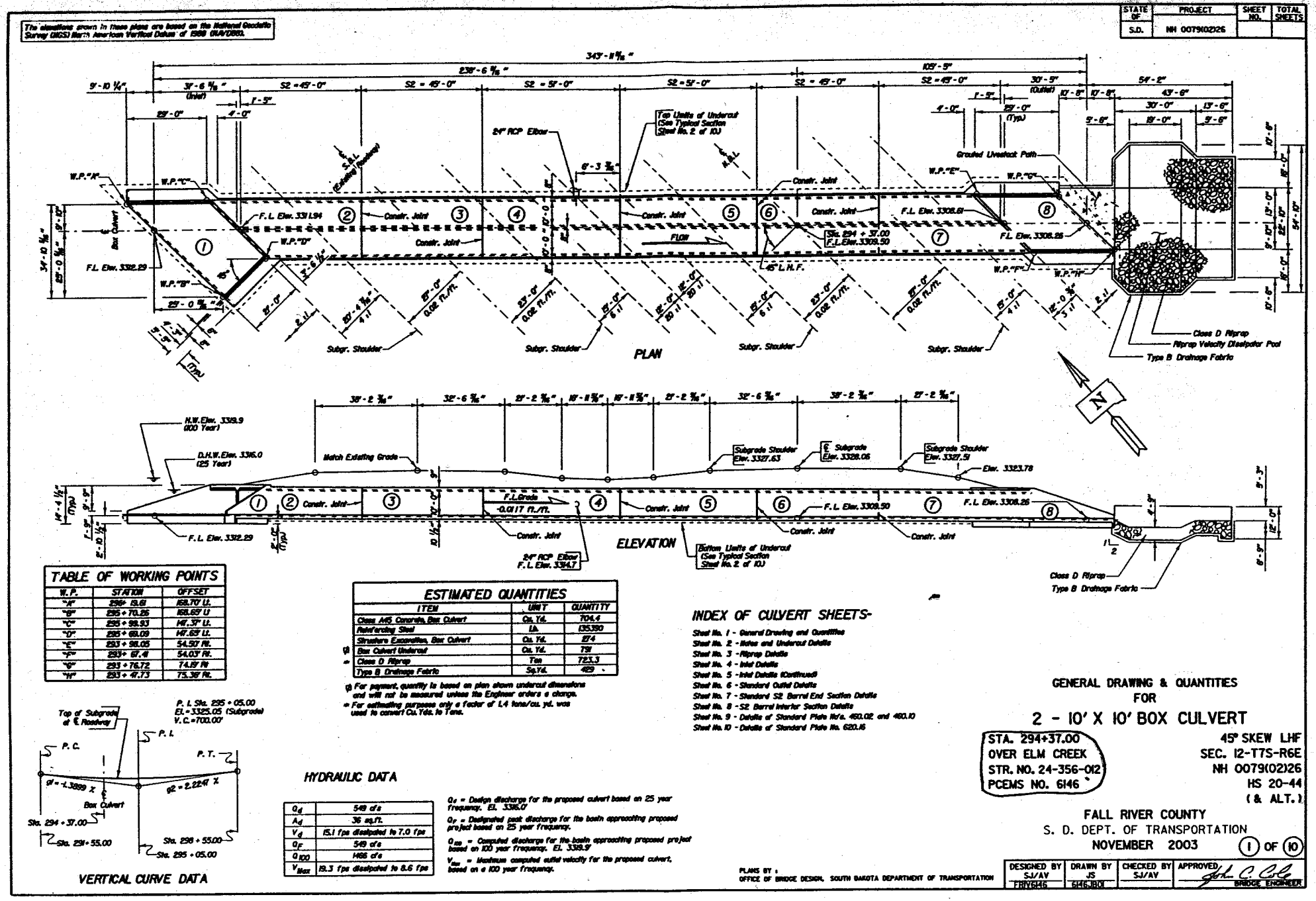


TABLE OF WORKING POINTS

W.P.	STATION	OFFSET
"A"	298+ 15.61	168.70' Lt.
"B"	295 + 70.26	168.69' Lt.
"C"	295 + 98.93	147.37' Lt.
"D"	295 + 69.09	147.69' Lt.
"E"	293 + 98.05	54.50' Rt.
"F"	293+ 67.41	54.03' Rt.
"G"	293 + 76.72	74.19' Rt.
"H"	293 + 47.73	75.38' Rt.

ESTIMATED QUANTITIES

ITEM	UNIT	QUANTITY
Class A45 Concrete, Box Culvert	Cu. Yd.	704.4
Reinforcing Steel	Lb.	135390
Structure Excavation, Box Culvert	Cu. Yd.	274
Box Culvert Undercut	Cu. Yd.	739
Class D Riprap	Ton	723.3
Type B Drainage Fabric	Sq.Yd.	459

(1) For payment, quantity is based on plan shown undercut dimensions and will not be measured unless the Engineer orders a change.
* For estimating purposes only a factor of 1.4 tons/cu. yd. was used to convert Cu. Yds. to Tons.

INDEX OF CULVERT SHEETS-

GENERAL DRAWING & QUANTITIES FOR 2 - 10' X 10' BOX CULVERT

STA. 294+37.00
OVER ELM CREEK
STR. NO. 24-356-012
PCEMS NO. 6146

45° SKEW LHF
SEC. 12-T7S-R6E
NH 0079(02)26
HS 20-44
(& ALT.)

FALL RIVER COUNTY
S. D. DEPT. OF TRANSPORTATION
NOVEMBER 2003

(1) OF (10)

VERTICAL CURVE DATA

HYDRAULIC DATA

Q_d	549 cfs
A_d	36 sq.ft.
V_d	15.1 fps dissipated to 7.0 fps
Q_F	549 cfs
Q_{100}	1466 cfs
V_{Max}	19.3 fps dissipated to 8.6 fps

Q_d = Design discharge for the proposed culvert based on 25 year frequency, El. 3316.0'
Q_F = Designated peak discharge for the basin approaching proposed project based on 25 year frequency.
Q_{100} = Computed discharge for the basin approaching proposed project based on 100 year frequency, El. 3319.9'
V_{Max} = Maximum computed outlet velocity for the proposed culvert, based on a 100 year frequency.

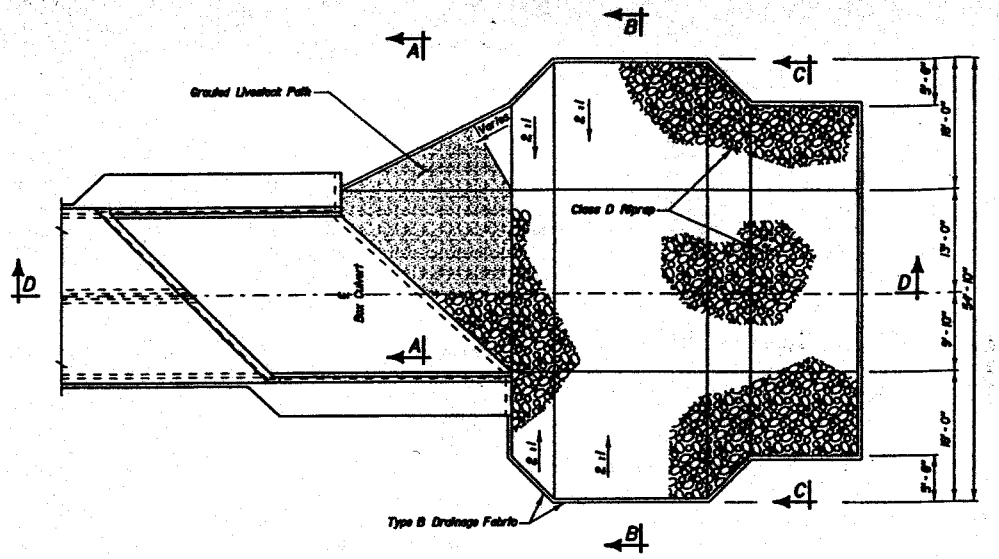
PLANS BY : OFFICE OF BRIDGE DESIGN, SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED
SJ/AV FRIV6146	JS 6146.801	SJ/AV	BRIDGE ENGINEER

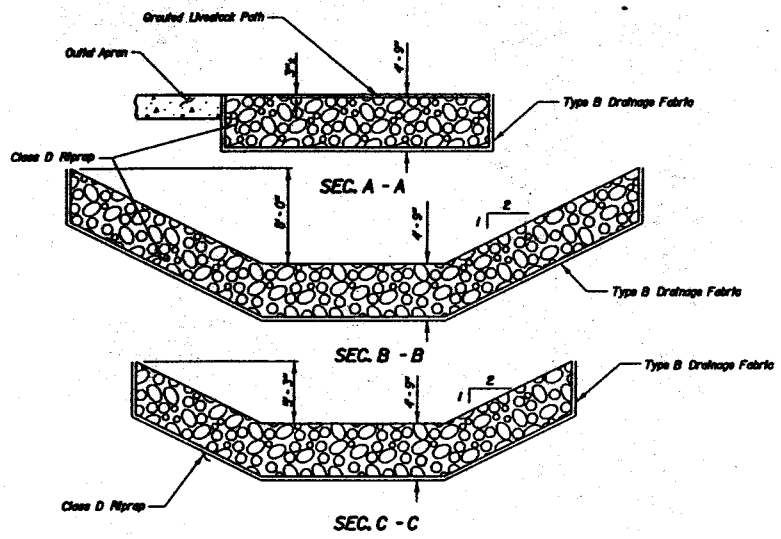
PURPOSE: Road Improvement
APPLICATION BY:
SD Dept. of Transportation
No. 200430323

IN streams/wetlands
AT T6S/R7E - T7S/R6E
COUNTY Custer/Fall River
DATE 10/20/2004
SHEET 13 **of** 15

STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
S.D.	NH 0079(02)26		



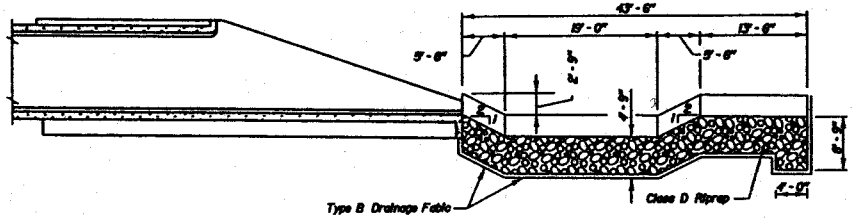
PLAN



ESTIMATED QUANTITIES

ITEM	UNIT	QUANTITY
* Class D Riprap	Ton	723.3
Type B Drainage Fabric	Sq.Yd.	429

* For estimating purposes only a factor of 1.4 tons/cu. yd. was used to convert Cu. Yds. to Tons.



SEC. D - D

RIPRAP DETAILS
FOR
2 - 10' X 10' BOX CULVERT

STA. 294+37.00
OVER ELM CREEK
STR. NO. 24-356-012

45° SKEW LHF
SEC. 12-T7S-R6E
NH 0079(02)26
HS 20-44
(& ALT.)

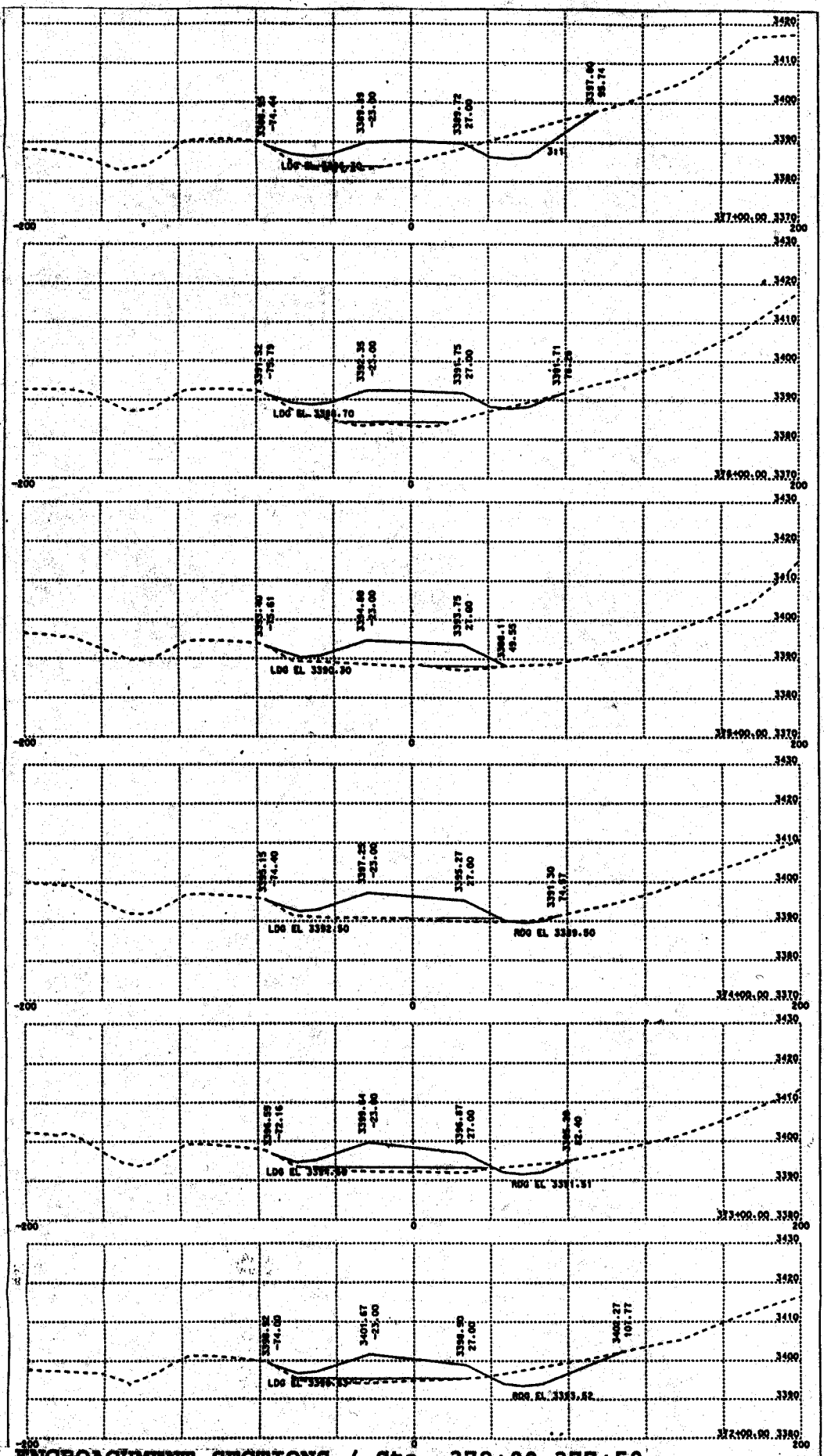
FALL RIVER COUNTY
S. D. DEPT. OF TRANSPORTATION
NOVEMBER 2003

(3) OF (10)

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED
SJ/AV	JS	SJ/AV	BRIDGE ENGINEER

PURPOSE: Road Improvement
APPLICATION BY:
SD Dept. of Transportation
No. 200430323

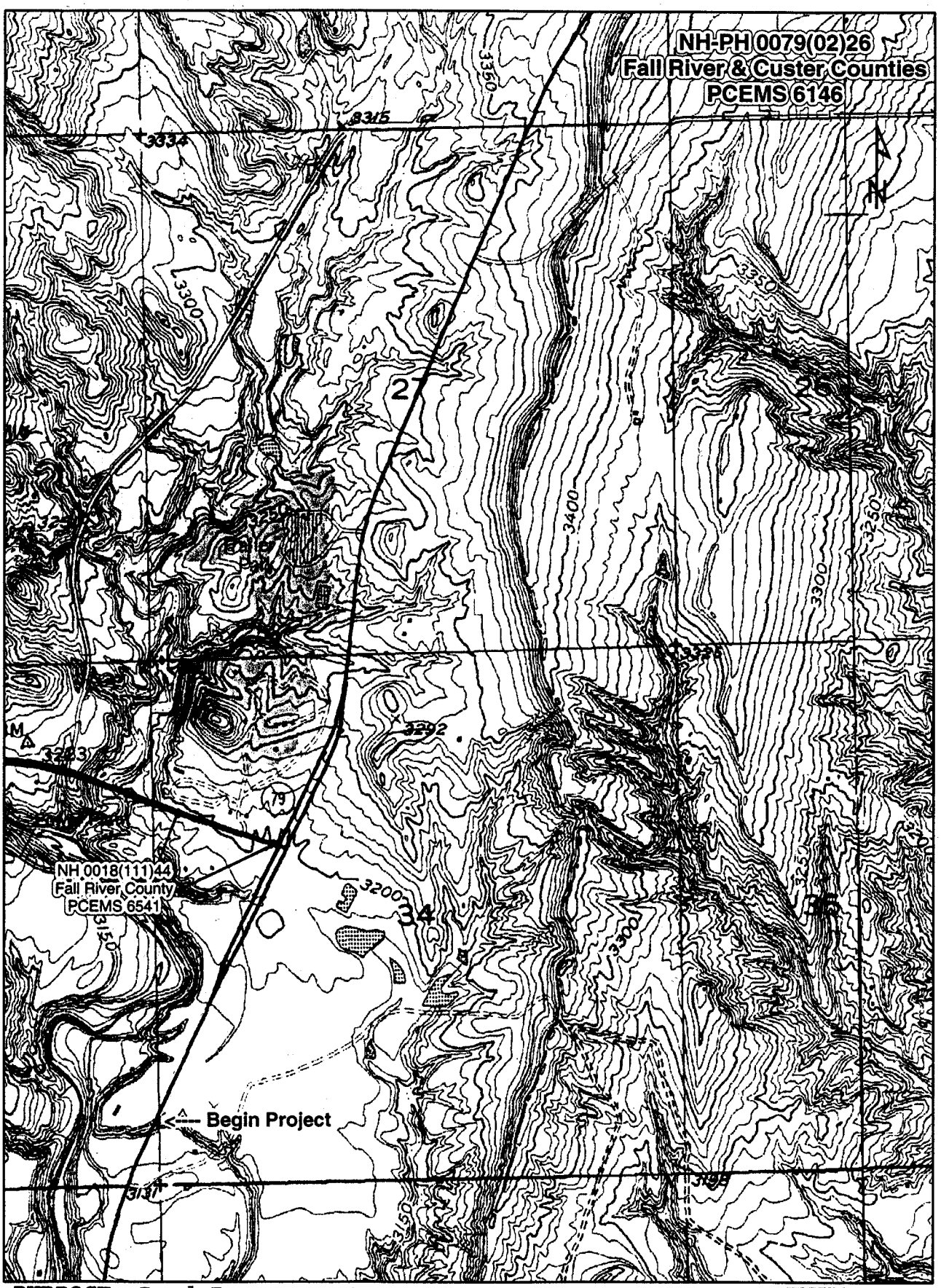
IN streams/wetlands
AT T6S/R7E - T7S/R6E
COUNTY Custer/Fall River
DATE 10/20/2004
SHEET 14 **of** 15



ROADWAY ENCROACHMENT SECTIONS / Sta. 372+00-377+50

PURPOSE: Road Improvement
APPLICATION BY:
SD Dept. of Transportation
No. 200430323

IN streams/wetlands
AT T6S/R7E - T7S/R6E
COUNTY Custer/Fall River
DATE 10/20/2004
SHEET 15 **of** 15



PURPOSE: Road Improvement
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SD Dept. of Transportation
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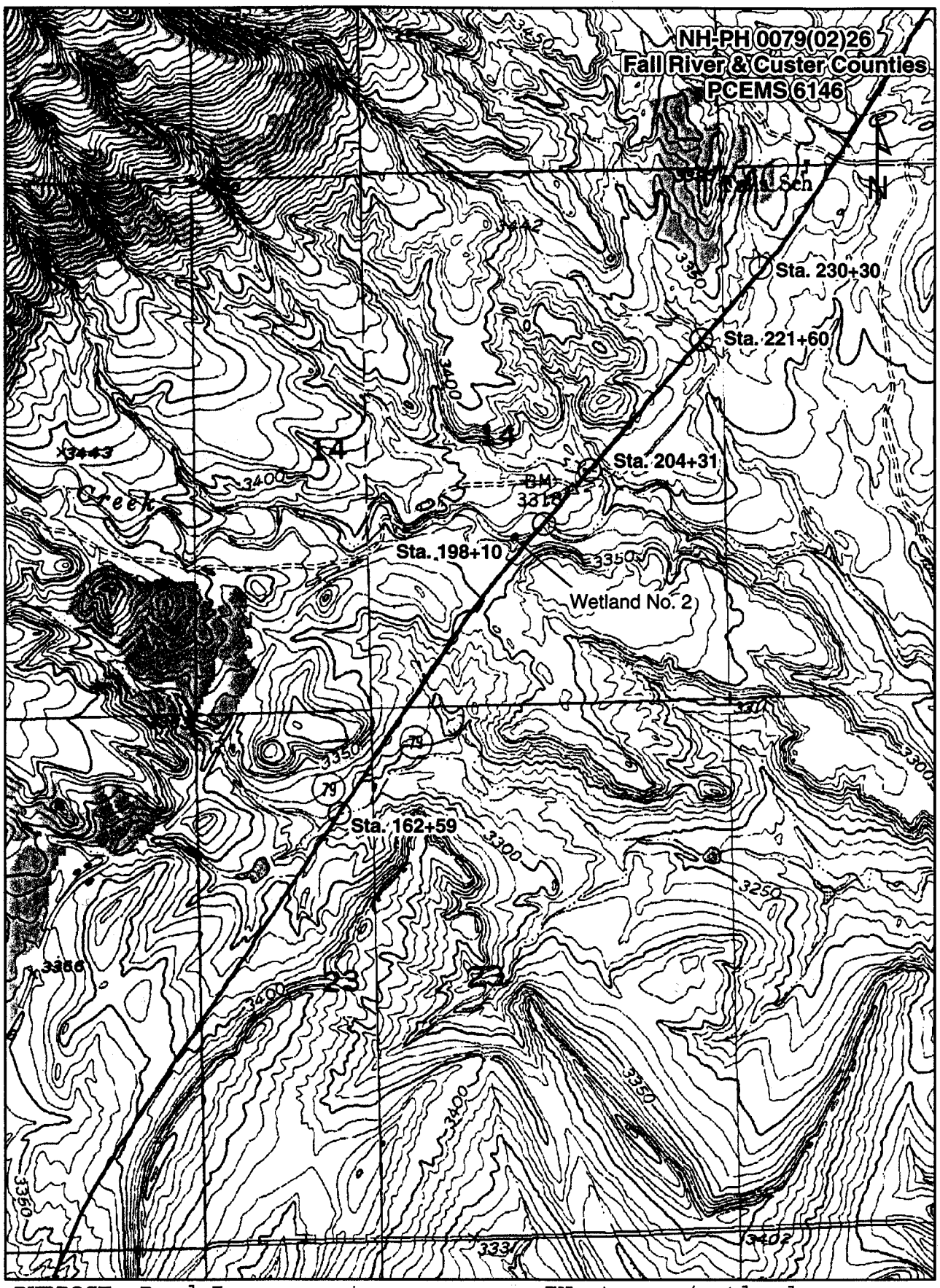
IN streams/wetlands
AT T6S/R7E - T7S/R6E
COUNTY Custer/Fall River
DATE 10/20/2004
SHEET 2 **of** 15



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SD Dept. of Transportation
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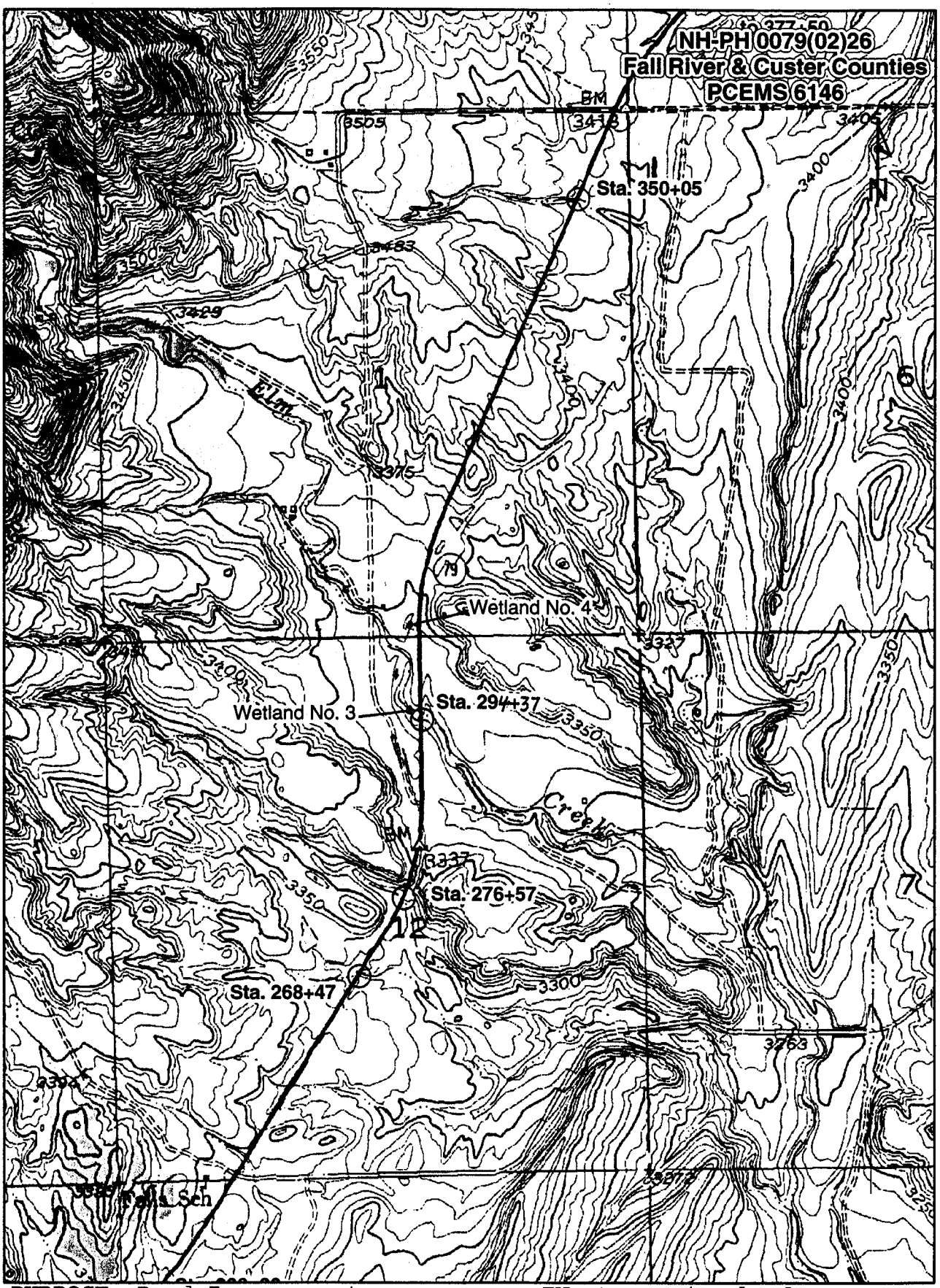
IN streams/wetlands
AT T6S/R7E - T7S/R6E
COUNTY Custer/Fall River
DATE 10/20/2004
SHEET 3 **of** 15



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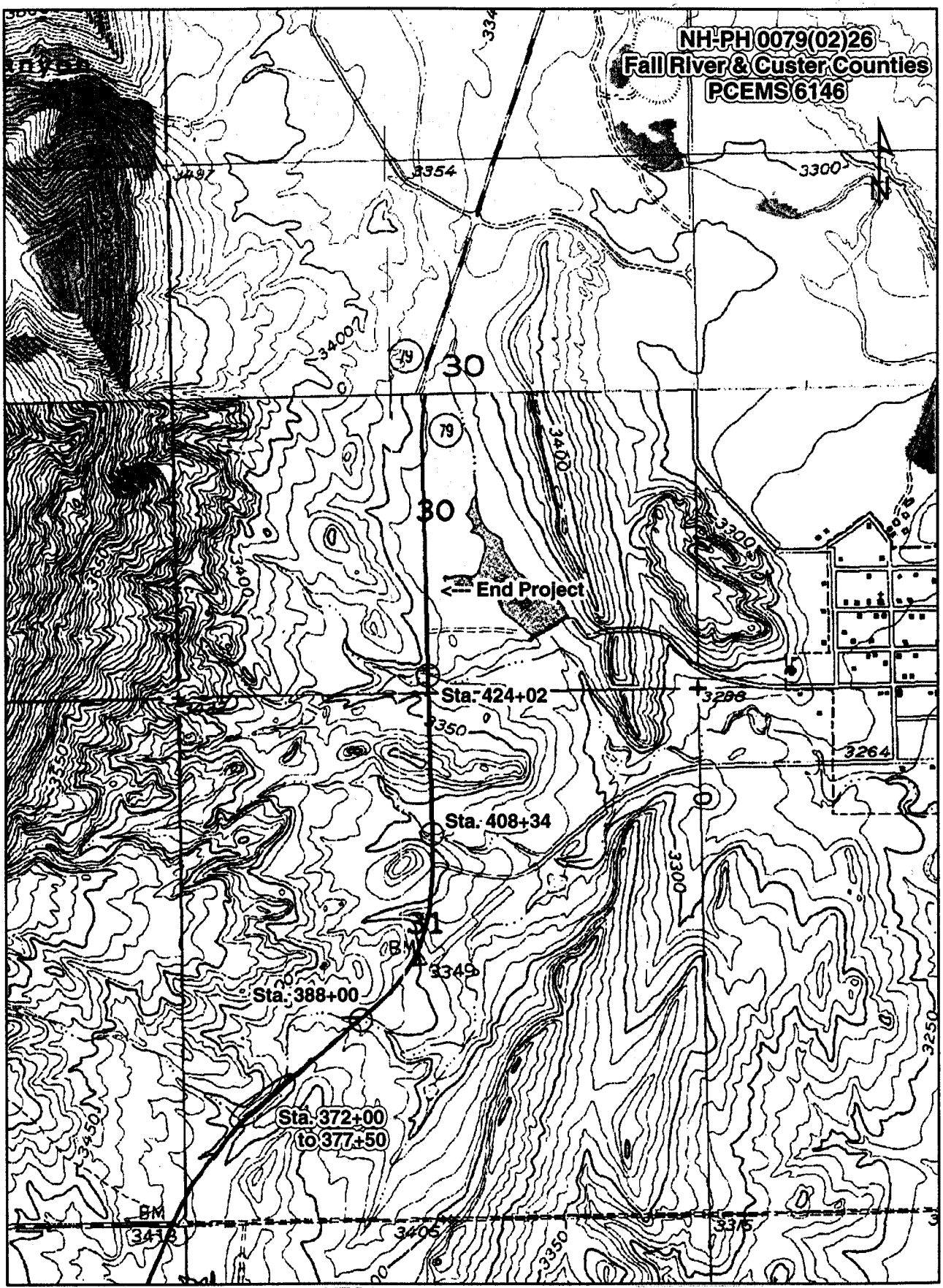
IN streams/wetlands
AT T6S/R7E - T7S/R6E
COUNTY Custer/Fall River
DATE 10/20/2004
SHEET 4 **of** 15



PURPOSE: Road Improvement
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SD Dept. of Transportation
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IN streams/wetlands
AT T6S/R7E - T7S/R6E
COUNTY Custer/Fall River
DATE 10/20/2004
SHEET 5 **of** 15

404 Quantities

No. 21. Types of Material Being Discharged and the Amount of Each Type in Cubic Yards

- **Sta. 162+59 Tributary to Spring Creek Sec 23 – T7S R6E**

  Ordinary High Water Elevation/Depth 3310.4 ft (2.4 ft depth)

  1 – 84" RCP

Pipe Length (including end section)	164	**linear ft.**
Bank & Channel Protection Gabions	27	**cu. yd.**

- **Sta. 198+10 Spring Creek Sec 14 – T7S R6E**

  Ordinary High Water Elevation/Depth 3308.2 ft (2.0 ft depth)

  1 – 9' x 9' RCBC extension with flared wingwalls

Backfill of RCBC undercut	120	cu. yd.
Concrete	109	cu. yd.
Embankment Fill	100	cu. yd.
Temporary Fill	20	cu. yd.
Riprap	21	cu. yd.
Total	**370**	**cu. yd.**

- **Sta. 204+31 Tributary to Spring Creek Sec 14 – T7S R6E**

  Ordinary High Water Elevation/Depth 3307.8 ft (2.8 ft depth)

  1 – 60" RCP

Pipe Length (including end section)	126	**linear ft.**
Bank & Channel Protection Gabions	15.5	**cu. yd.**

- **Sta. 221+60 Tributary to Spring Creek Sec 14 – T7S R6E**

  Ordinary High Water Elevation/Depth 3314.4 ft (2.8 ft depth)

  1 – 72" RCP

Pipe Length (including end sections)	146	**linear ft.**
Bank & Channel Protection Gabions	21.5	**cu. yd.**

- **Sta. 230+30 Tributary to Spring Creek Sec 13 – T7S R6E**

  Ordinary High Water Elevation/Depth 3323.1 ft (2.5 ft depth)

  1 – 60" RCP

Pipe Length (including end sections)	150	**linear ft.**
Bank & Channel Protection Gabions	15.5	**cu. yd.**

- **Sta. 268+47 Tributary to Elm Creek Sec 12 – T7S R6E**

  Ordinary High Water Elevation/Depth 3313.6 ft (2.5 ft depth)

  1 – 60" RCP

Pipe Length (including end sections)	144	**linear ft.**
Bank & Channel Protection Gabions	15.5	**cu. yd.**

- **Sta. 276+57 Tributary to Elm Creek Sec 12 – T7S R6E**

  Ordinary High Water Elevation/Depth 3327.0 ft (2.3 ft depth)

  1 – 48" RCP

Pipe Length (including end sections)	138	**linear ft.**
Bank & Channel Protection Gabions	12	**cu. yd.**

- **Sta. 296+00 Elm Creek Sec 12 – T7S R6E**

  Ordinary High Water Elevation/Depth 3312.5 ft (0.6 ft depth)

  2 – 10' x 10' RCBC with flared wingwalls

Backfill of RCBC undercut	791	cu. yd.
Concrete	317	cu. yd.
Embankment Fill	200	cu. yd.
Temporary Fill	40	cu. yd.
Riprap	517	cu. yd.
Total	**1865**	**cu. yd.**

- **Sta. 350+05 Tributary to Elm Creek Sec 1 – T7S R6E**

  Ordinary High Water Elevation/Depth 3408.3 ft (0.8 ft depth)

  1 – 9' x 8' RCBC

Backfill of RCBC undercut	120	cu. yd.
Precast Box Length (including ends)	212	linear ft.
Embankment Fill	150	cu. yd.
Temporary Fill	20	cu. yd.
Riprap	16	cu. yd.
Total	**306**	**cu. yd. + 212 linear ft.**

- **Sta. 372+00– 377+50 Tributary to Beaver Crk. Sec 31 – T6S 7E**

  Ordinary High Water Depth 1.3 ft

  Roadway encroachment into channel

  Roadway Fill **1000 cu. yd.**

PURPOSE: Road Improvement
APPLICATION BY:
SD Dept. of Transportation
No. 200430323

IN streams/wetlands
AT T6S/R7E - T7S/R6E
COUNTY Custer/Fall River
DATE 10/20/2004

- **Sta. 388+00 Tributary to Beaver Creek Sec 31 – T6S 7E**

Ordinary High Water Elevation/Depth 3355.1 ft (1.3 ft depth)

OPTION NO. 1

1 – 9' x 8' Cast-in-place RCBC with flared wingwalls

Backfill of RCBC undercut	481	cu. yd.
Concrete	114	cu. yd.
Embankment Fill	160	cu. yd.
Temporary Fill	30	cu. yd.
Riprap	16	cu. yd.
Total	**801**	**cu. yd.**

OPTION NO. 2

1 – 9' x 8' Precast RCBC with standard end sections

Backfill of RCBC undercut	423	cu. yd.
Precast Box Length (including ends)	232	linear ft.
Embankment Fill	160	cu. yd.
Temporary Fill	30	cu. yd.
Riprap	16	cu. yd.
Total	**629**	**cu. yd. + 232 linear ft.**

- **Sta. 408+34 Tributary to Beaver Creek Sec 31 – T6S R7E**

Ordinary High Water Depth 2.8 ft

1 – 60" RCP

Pipe Length (including end sections)	**144**	**linear ft.**
Bank & Channel Protection Gabions	15.5	**cu. yd.**

- **Sta. 424+02 Tributary to Beaver Creek Sec 30 – T6S R7E**

Ordinary High Water Elevation/Depth 3341.3 ft (2.8 ft depth)

1 – 60" RCP

Pipe Length (including end sections)	**113**	**linear ft.**
Bank & Channel Protection Gabions	15.5	**cu. yd.**

Table 1

Wetland Impacts
NH 0079(08)26 PCEMS 5797 CUSTER COUNTY
NH0079( ) 27 PCEMS 6146 CUSTER/FALL RIVER COUNTIES
SD79 FROM FAIRBURN ROAD TO SD 36 SOUTH OF HERMOSA
SD 79 FROM BUFFALO GAP TO FAIRBURN CORNER
SD 79 FROM MAVERICK JCT TO BUFFALO GAP

Wetland No.	Type	Area left (ft^2)	Area right (ft^2)	Total area (ft^2)
1.	PEMC	0	0	0
2.	PEMA	1390	0	1390
3.	PFOA	1390	0	1390
4.	PUSCh	1600	0	1600

6146

PURPOSE: Road Improvement
APPLICATION BY:
SD Dept. of Transportation
No. 200430323

IN streams/wetlands
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DATE 10/20/2004
SHEET 8 **of** 15

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.
	NH-PH 0079 ( )126 NH 0018(111)44	B30

Plotting Date: 19-AUG-2004

190+99-66'L
Retain 18"-72'RCP
& 1 End Section
& Take Out 1 End Section
(Incidental Work)

190+99 L (2 ac)
Install 18"-6'RCP
& 1 Safety End

197+17-60' to 198+06-83'R
Install 18"-86' CMP Downspout
(12', 56', 18' Str Pipe)
And 1-17.5° Elbow
And 1-15° Elbow
& 1 CMP Safety End
& 1 CMP Flared End

198+10-100'L
Retain 9'X 9'X 86'
Box Culvert

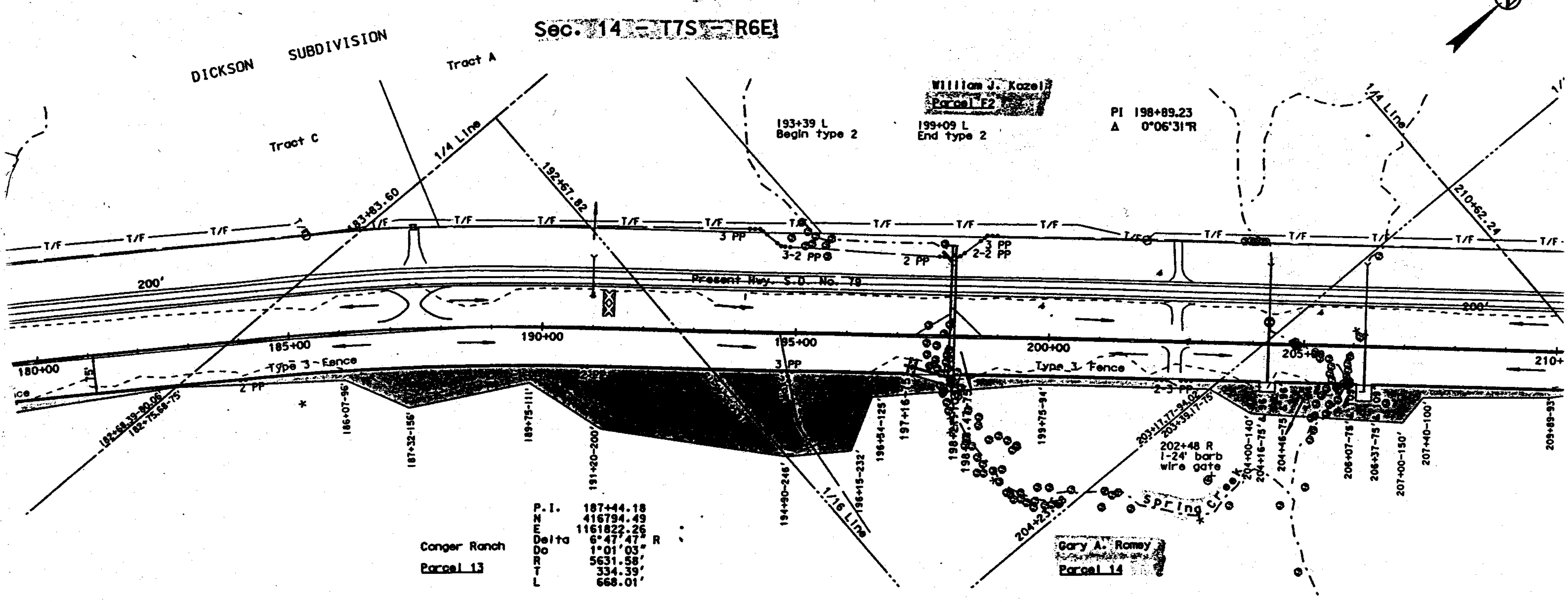
198+10 (4.61 sq mi)
Install 9'x 9'RC
Box Culvert Extension
(See Section E)

204+31-42'L
Retain 60"-132'RCP
& 1 End Section
& Take Out 1 End Section
(Incidental Work)

204+31 (360 ac)
Install 60"-114'RCP
& 1-24"-6'RC Riser Pipe
& 1-60"-24"RC Tee
& Type N Grate
& 1 Flared End

206+22 L
Retain 24"-131'RCP
& 1 End Section
& Take Out 1 End Section
(Incidental Work)

206+22 (30 ac)
Install 24"-116'RCP
(CL 4: 76' CL 2: 40')
& 1 Sloped End



Sta. 196 (Left)
Wetland No. 2
Type: PEMA
Impact: 1390 ft.^{2} (0.032 Ac.)

TYPICAL PLAN VIEW

Parcel 13
182+68.39 to 194+90 R
Temporary Easement for
Fill & Cut containing
1.8 ac. more or less

Parcel 14
193+35.46 to 211+04 R
Temporary Easement for
Fill & Cut containing
1.9 ac. more or less

PURPOSE: Road Improvement
APPLICATION BY:
SD Dept. of Transportation
No. 200430323

IN streams/wetlands
AT T6S/R7E - T7S/R6E
COUNTY Custer/Fall River
DATE 10/20/2004
SHEET 9 **of** 15